

REMARKS

Claims 1, 3-11, and 25-27 are in this Application. Claims 2, 3 and 12-24 were previously canceled and Claims 25-27 are withdrawn without prejudice. Claim 1 has been amended. Claim 10 has been canceled and new Claim 28 has been added. Thus, Claims 1, 4-9, 11 and 28 are currently pending in this Application.

CLAIM AMENDMENTS

Claim 1 has been amended to incorporate the language of dependent Claim 10, now canceled, to recite that the fiber-cement composite material, containing bleached fibers in the recited range, has a modulus of rupture (MOR) that is “substantially equal to or greater than the MOR of an equivalent composite material reinforced with unbleached, premium grade cellulose fibers.” Neither Duselis patent, nor Gregerson or Cook, disclose such a composite and thus it is respectfully submitted that Claim 1, as amended, is patentably distinguishable, as well as depending Claims 4-9 and 11. Accordingly, it is believed that Claims 1, 4-9 and 11 are in condition for allowance. Because new Claim 28 generally includes the recitation of amended Claim 1 but further specified the composite material’s MOR to “greater than about 10”, it is also believed to be in condition for allowance.

REJECTIONS

Claims 1, 4-9 and 11 were rejected on the following grounds:

- Nonstatutory obviousness-type double patenting (“ODP”);
- Anticipation under 35 U.S.C. § 102 (a) and (e) by either U.S. Patent Nos. 6,506,248 and 6,346,146 (collectively “the Duselis patents”); and
- Obviousness under 35 U.S.C. § 103(a) in view of each Duselis patent, or alternatively, in view of Cook et al. (U.S. Patent No. 6,942,726) and Gregerson et al. (EP 263723).

Rejection for Obviousness-Type Double Patenting (ODP)

The Examiner rejected Claim 1, and 4-11 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over all claims of U.S. Patent No. 6,506,248 B1 (Duselis et al.) and 6,346,146 B1. The Examiner has maintained the argument that “Duselis does not limit his range of amounts for his mixture. Duselis ‘248 B1 teaches cellulose fibers may be bleached, unbleached, or mixtures thereof. Again, Duselis is not limited to any particular ranges but is inclusive of any mixture between bleached fibers and unbleached fibers. This reference is good for all that it teaches and it is inclusive of Applicants’ claimed mixture.” (Office Action mailed August 30, 2007, p. 5).

The Examiner also takes issue with Applicant’s argument that the benefits of bleached and unbleached fibers were not recognized at the time of filing of the Duselis patents. The Examiner states that “this is not relevant especially since these ODP references sufficiently teach Applicants’ invention and the prima facie case of obviousness has been met.” As discussed by Mr. Caidian Luo, a co-inventor of the present invention, the blend of bleached and unbleached fibers unexpectedly provided comparable mechanical properties to the composition and one of ordinary skill in the art would not have expected the blend at the claimed percentages to have such an effect. See the Declaration of Caidian Luo Pursuant to 37 C.F.R. § 1.132 (“Declaration”), ¶¶ 6-11. There is no teaching in Duselis that that the claimed concentration ranges would provide such benefits.

Claims 1, 4-11 of the present application are directed to embodiments that provide surprising results (e.g., that bleached cellulose fibers when used in proper proportions with unbleached, standard grade cellulose fibers can result in a fiber cement composite material with

substantially equal or even superior flexibility, strength, and other physical properties when compared to an equivalent composite material reinforced by the more costly and less abundant premium grade cellulose fibers), as shown in Figures 2-4, that were not anticipated by the ODP references or the other references cited by the Examiner. Declaration, ¶ 8.

The Examiner addresses Applicant's argument that Duselis is a dominating reference under In re Kaplan, specifically, that Duselis' genus dominates the claimed species of the present application, and is therefore an improper basis for a double patenting rejection. Applicant disagrees that "applicants are essentially asking the Examiner to ignore the teaching of this references [Duselis '248]". Applicant is asking the Examiner only to consider what Duselis does not teach or suggest in comparison to the claimed invention.

Duselis does not address the same problem nor propose the same solution as the claimed invention. The problem Duselis addresses is that there was a need for a low density product that is comparable to timber and timber based products over the existing products at the time which were heavier, harder to cut, machine and nail. The solution to the problem observed by Duselis, in part, was to use calcium silicate hydrate in the embodiments disclosed therein. In contrast, the problems recognized by the Applicant that are addressed by the present invention relate to the use of premium grade cellulose fibers in medium density fiber-cement products manufactured by Applicant. Premium grade cellulose pulp suffers from limited supplies and costs more than unbleached pulp, which was particularly problematic for Applicant in view of the scale of its operations. Assuming, without conceding, that the Examiner has met his burden of making a *prima facie* case of obvious, the claimed invention was nonetheless a surprising result to one of ordinary skill in the art as addressed in the attached Declaration. Declaration, ¶ 6-8 Applicant

respectfully submits that Claims 1, 4-9, and 11 are patentably distinct from Duselis and respectfully requests that the Examiner withdraw this rejection.

Rejection under 35 U.S.C. § 102 (a) and (e)

The claims are rejected under § 102(a) and (e) as being anticipated by each of two patents filed by Duselis *et al.*, U.S. Patent Nos. 6,506,248 (“Duselis ‘248”) and 6,346,146 (“Duselis ‘146”). Applicant respectfully requests that the rejection of the claims under § 102 being withdrawn.

Considerable disagreement remains regarding the concentration ranges of the cellulose fibers – between those disclosed in Duselis and those claimed – and whether the Duselis genus anticipates the claimed range. The Examiner argues that the claimed concentrations are taught by Duselis, and further adds that Applicant’s own argument to the contrary is incorrect on the basis that the claims recite a dry formulation. The Examiner states that “Applicants’ own total amounts of bleached and unbleached cellulose fibers is directed to their own dry formulation so this argument is not convincing.” (Office Action, p.6). Applicant did not intend to suggest that the distinction hinges upon whether water is present in the formulation, i.e. dry or not, but rather, that Duselis discloses the concentration of the “fibrous materials” relative only to the overall formulation weight, in which case the total cellulose fiber concentration is up to 25 weight percent of the total. In other words, concentrations of the subset of cellulose fibers (bleached or unbleached) is not disclosed or suggested, and as discussed in the attached Declaration, the efficacy of the concentrations was unexpected.

The Examiner argues, (Office Action, p. 6), that the range of the total fiber content of the mixture suggested in Duselis overlaps that of Claim 1, and thus, Duselis anticipates it. In other words, the Examiner’s position is that the genus of Duselis anticipates the claimed invention.

However, such a position is contrary to the law as noted at M.P.E.P. § 2131.03. In *Atofina v. Great Lakes Chemical Corp.*, 78 USPQ2d 1417 (Fed. Cir. 2006), in reversing the lower court's finding of anticipation based on overlapping temperature ranges, the Federal Circuit held that a genus cannot anticipate a species claim even through the claimed temperature range (330 to 450 °C) overlapped the range taught by the prior art patent (100 to 500 °C), because no specific embodiment was disclosed in the prior art patent that taught the claimed range. *Id.* at 1423-24.

The Examiner is similarly arguing that a broadly described genus anticipates a specifically claimed species although Duselis fails to teach a specific embodiment within the claimed range. Neither Duselis patent provides any information on the percentage of bleached pulp used in a cellulose fiber blend. Declaration, ¶¶ 9, 10. Consequently, it is not at all clear how the Examiner can maintain the implied position that the Duselis describes the claimed invention with sufficient specificity. If the Examiner does not trust Applicant's discussion of the case above, Applicant respectfully requests that he consider the discussion in the M.P.E.P. at § 2131.03. If the Examiner again finds this argument unpersuasive and maintains the rejection under 35 U.S.C. § 102, Applicant respectfully requests that the Examiner explain why it is not persuasive to allow Applicant to respond more directly to the Examiner's concerns to advance prosecution of this Application.

As noted above, the ranges disclosed in Duselis regarding the cellulose fiber content relative to the overall formulation is not comparable to the claimed ranges of unbleached fibers compared to the concentration of cellulose fibers, specifically. However, assuming that they are, Duselis nonetheless does not disclose the specific embodiment that bleached fibers must comprise "between about 5 and 25 weight percent of the total cellulose fibers incorporated into the matrix." *c.f. Atofina.* Therefore, Applicant respectfully submits that Claim 1 is not

anticipated and is patentably distinct from Duselis and respectfully requests that the rejection be withdrawn. Because Claims 4-9 and 11 depend from Claim 1, it is believed that these claims are also in condition for allowance.

Rejections under 35 U.S.C. § 103

The rejection under § 103(a) is in view of each Duselis reference, or alternatively, in view of Cook *et al.* (U.S. Patent No. 6,942,726) and Gregerson *et al.* (EP 263723).

The Examiner states that the Duselis references do not teach specific fiber types (Office Action, p. 4) or lengths (Office Action, p. 5). As discussed previously, neither Duselis reference teaches a combination of bleached and unbleached cellulose fibers in which there is a greater amount of unbleached cellulose fibers than bleached cellulose fibers. Claim 1 requires that the amount of bleached cellulose fibers be between about 5 and 25 weight percent of the total amount of cellulose fibers. Amended Claim 1 now requires an MOR that is substantially equal to or greater than the MOR of an equivalent composite material reinforced with unbleached, premium grade cellulose fibers. Duselis neither teaches nor suggests the composite material recited in amended Claim 1. Moreover, the observation that the cellulose fiber blend with the recited range of bleached fibers unexpectedly provided the composite material with an MOR substantially equal to the counterpart material comprising unbleached fibers. Declaration, ¶ 7.

The Office next relies on Cook *et al.* for the teaching of specific examples of cellulose fibers and relies on Gregerson *et al.* for the teaching of specific fiber lengths. Gregerson fails to teach or suggest the recited proportion of bleached fibers of between about 5 to 25 weight percent, and in fact, Gregerson would find the result surprising considering that in most cases Gregerson teaches utilizing the bleached to unbleached fibers in a ratio of three to one. This is

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far different from the range required by Claim 1 of the present application. Therefore, it is clear the Gregerson teaches away from the claims of the present application prior to amendment. Moreover, Gregerson in combination with Duselis and Cook fails to teach or suggest the claimed invention of amended Claim 1.

Because none of the references cited by the Examiner disclose, describe, teach or contemplate the limitations recited in amended Claim 1, either individually or in combination, independent amended Claim 1 is patentably distinct from these references, along with dependent Claims 4-9 and 11. As such, Applicant requests that the Examiner withdraw these rejections.

Applicant has made a diligent effort to amend claims, cancel claims and point out with particularity how the claim invention is distinguishable over the prior art, and respectfully submits that the Application is in condition for allowance.

Applicants hereby authorize the Commissioner to charge any additional fees or refunds that may be required by this paper to Gardere Wynne Sewell LLP Deposit Account No. 07-0153.

**Please direct all correspondence to the practitioner listed below at Customer No.
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Respectfully submitted,



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